

Ceramic Dual Low Pass Filter

LFCN-291-1PM+

50Ω DC⁽¹⁾ to 290 MHz



CASE STYLE: FV1206-1

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Available Tape and Reel at no extra cost
Reel Size 7" Devices/Reel 20, 50, 100, 200, 500, 1000, 3000

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C

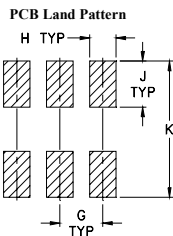
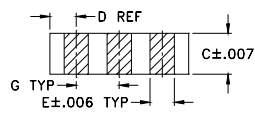
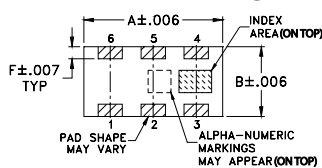
* Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN1, RF IN2	1,6
RF OUT1, RF OUT2	3,4
GROUND	2,5

Product Marking: BQ

Outline Drawing

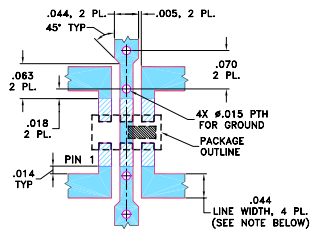


Suggested Layout,

Outline Dimensions (inch/mm)

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28
G	H	J	K	wt	
.039	.024	.042	.123	grams	
0.99	0.61	1.07	3.12	.020	

Demo Board MCL P/N: TB-255+ Suggested PCB Layout (PL-131)



NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS 0.020" ± 0.0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

- BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Features

- very good power handling, 8.5W
- small size
- balanced input-balanced output
- temperature stable
- LTCC construction
- differential 8th order BUTTERWORTH with common mode rejection

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use
- used with PMC-Sierra's PM8910/11/12/13

Electrical Specifications^(1,2,3) at 25°C

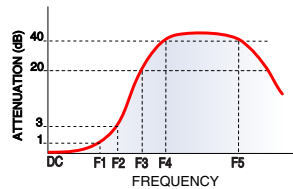
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	290	—	2.0	3.5	dB
	Freq. Cut-Off	F2	325	—	3.0	—	dB
	VSWR	DC-F1	290	—	1.22	—	:1
Stop Band	Rejection Loss	F3	460	20	—	—	dB
	VSWR	F4-F5	600-2000	37	45	—	dB
		F3-F5	460-2000	—	20	—	:1

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

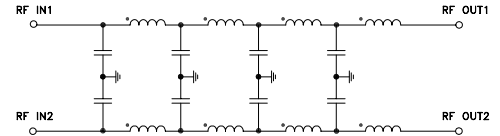
(2) Measured differentially both at input and output (100Ω across input and output)

(3) Measured on Mini-Circuits Characterization Test Board TB-255

Typical Frequency Response



Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.30	0.24	1.05
0.50	0.25	1.05
1.00	0.25	1.05
10.00	0.26	1.05
30.00	0.33	1.10
50.00	0.41	1.16
110.00	0.67	1.28
200.00	1.02	1.22
300.00	1.92	1.28
400.00	14.52	13.92
500.00	34.17	50.62
700.00	44.41	86.59
1005.00	46.95	97.99
1525.00	69.63	96.37
2000.00	44.75	96.93

